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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,103	02/27/2004	Mitsuo Satake	KSM-0222	4818

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EXAMINER
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RYCKMAN, MELISSA K

ART UNIT	PAPER NUMBER
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3734

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/787,103	<b>Applicant(s)</b> SATAKE ET AL.	
	<b>Examiner</b> Melissa Ryckman	<b>Art Unit</b> 3734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/27/04, 5/14/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: IDS cont 6/16/04.

## DETAILED ACTION

### *Specification*

1. The format of the claims are preferred to be in the form of a preamble, a transitional phrase (such as comprises), and body.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,5,6,7,9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallace et al. (U.S. Patent No. 6,585,754) in view of Coplan (3,918,455).
3. Wallace et al. discloses a vasoocclusive coil as referred to in claim 1 comprising: a flexible monofilament (col. 2 ll. 62) of a bioabsorbable polymer (col. 3 ll. 27-32). However Wallace et al. is silent regarding the construction of the monofilament. Coplan teaches a hollow monofilament (col.1 ll. 50-52) as used in a surgical suture needle. This combination would have been obvious to one of ordinary skill in the art as making the monofilament hollow is a possible way of delivering drugs.

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4. Wallace et al. discloses a vasoocclusive coil as referred to in claim 5 comprising a bioabsorbable polymer that is an aliphatic polyester bioabsorbable polymer (col. 3 ll. 27-32).

5. Wallace et al. discloses a vasoocclusive coil as referred to in claim 6 comprising a bioabsorbable polymer that is a poly (lactic acid) (col. 3 ll. 30).

6. Wallace et al. discloses a vasoocclusive coil as referred to in claim 7 which is formed by winding the hollow monofilament of the bioabsorbable polymer helically around a mandrel (col. 6 ll. 53).

7. Wallace et al. discloses a vasoocclusive coil as referred to in claim 9 where the mandrel is in the form of a straight rod or has a helical or random form (col. 3 ll. 18-20).

8. Wallace et al. discloses a vasoocclusive coil as referred to in claim 10 comprising: a secondary coil formed by winding the hollow monofilament of the bioabsorbable polymer into a helical form of small diameter and further winding the primary coil into a helical form of large diameter (col. 6 ll. 40-41).

9. Claims 1-4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchart et al. (U.S. Patent No. 4,994,069) in view of Coplan (U.S. Patent No. 3,918,455).

10. Ritchart et al. discloses a vasoocclusive coil as referred to in claim 1, however it does not disclose a hollow monofilament of a bioabsorbable polymer. Coplan teaches a hollow monofilament (col.1 ll. 50-52) of a bioabsorbable polymer (col. 2 ll. 25-29) as used in a surgical suture needle. This combination would have been obvious to one of

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ordinary skill in the art as making the coil with a hollow monofilament is a possible way of delivering drugs and making the coil bioabsorbable is advantageous so the coil will not later need to be removed by surgery.

11. Ritchart et al. discloses a vasoocclusive coil as referred to in claim 2 which holds shape memory and restores the shape thereof after being pushed out of the catheter (col. 2 ll. 55-59).

12. Ritchart et al. discloses a vasoocclusive coil as referred to in claim 3 where the wire is 0.25 mm to 0.75 mm (col. 4 ll. 58) in outside diameter, which falls in the range of 0.015 mm to 0.4 mm.

13. Ritchart et al. does not disclose a vasoocclusive coil where the monofilament is hollow, therefore an inner diameter is not applicable as referred to in claim 4, however Coplan teaches a hollow monofilament (col.1 ll. 50-52) with a bore diameter ranging from 0.025 mm to 0.508 mm, which falls in the range of 0.01 mm to 0.3 mm. This combination would have been obvious to one of ordinary skill in the art as making the coil with a hollow monofilament is a possible way of delivering drugs.

14. Ritchart et al. discloses a vasoocclusive coil as referred to in claim 7 which is formed by winding a wire around a mandrel (col. 6 ll. 21-22), however Coplan teaches a hollow monofilament (col.1 ll. 50-52) of a bioabsorbable polymer (col. 2 ll. 25-29).

15. This combination would have been obvious to one of ordinary skill in the art as making the coil with a hollow monofilament is a possible way of delivering drugs and making the coil bioabsorbable is advantageous so the coil will not later need to be removed by surgery.

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16. Ritchart et al. discloses a vasoocclusive coil as referred to in claim 8 however Ritchart et al. is silent regarding the variations in shape of the mandrel. It would have been an obvious matter of design choice to bend the mandrel at at least one distal end, since such a modification would have involved a mere change in the shape of a component. The bend in the mandrel can help with the positioning and guiding of the coil. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Dailey*, 149 USPQ 47 (CCPA 1966)

### ***Conclusion***

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. (7,070,608) Kurz et al. discloses a vasoocclusive coil

U.S. Pub No. (2003/0004533) Dieck et al. discloses a bioactive polymer vasoocclusve device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Ryckman whose telephone number is (571)-272-9969. The examiner can normally be reached on Monday thru Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on (571)-272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MKR



MICHAEL J. HAYES  
SUPERVISORY PATENT EXAMINER